

### REMARKS

Claims 1-13, 15-38, 52, and 53 are pending. Independent claims 1, 26-28, and 38 have been amended.

The undersigned appreciates the courtesies shown by Examiner Gordon during a telephone interview April 7, 2005. The amendments and remarks herein are in accord with those discussed during the interview.

Claims 1-9, 13, 21-34, and 38-45 were rejected under "35 U.S.C. § 102(b) as being anticipated by Handique et al., U.S. Patent No. 6,130,098 ("Handique"). The Advisory action mailed January 24, 2005 states that Handique discloses "[r]eactions [including], but [] not limited to, chemical and biological reactions" and that "a measurement of the reaction detectors confirms the presence of a microdroplet."

As presented herein, the method of claim 1 recites:

- (ii) determining, utilizing at least one internal component, the presence or absence of a micro-droplet at a selected position;
- (iii) after determining the presence or absence of the microdroplet, determining reaction products of one or more components of the microdroplet;

As presented herein, the method of claim 26 recites:

after sensing the presence or absence of the microdroplet at the selected position, sensing the composition of a micro-droplet at a selected position in a selected passage by internal components acting as a micro-droplet presence sensor by sending optical signals to the MF device and receiving optical signals returned from the MF device.

As presented herein, the method of claim 27 recites:

sensing, utilizing at least one internal component, the presence or absence of a micro-droplet at a selected position in a selected passage and then determining the presence of a reaction product of

at least one component of the microdroplet at a different position of the microfluidic device.

As presented herein, the method of claim 28 recites:

reacting the at least one micro-droplet, after the determining, utilizing the at least one internal component, the presence or absence of the at least one final microdroplet and the moving the at least one final micro-droplet.

As presented herein, the method of claim 38 recites:

reacting the micro-droplet by waiting for a time sufficient for occurrence of the reaction or by exciting the final micro-droplet by providing control signals to the MF device, wherein the excitation is sufficient to cause occurrence of the reaction and the reacting is performed after the determining, utilizing the at least one internal component, the presence or absence of the micro-droplet within a region of the MF device.

Handique does not disclose or suggest the methods of claims 1, 26-28, and 38, which can be used to, for example, determine the presence or absence of a microdroplet independently of subjecting the microdroplet to a reaction or determining a composition of the microdroplet. One can use the present methods to, for example, determine whether a negative reaction result occurred, for example, because the microdroplet was not present or because reaction product was not present in the microdroplet.

Claims 10-12, 14-20, 35-37, and 46-53 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Handique in further view of Soane or, the alternative, Southgate.

Neither Handique alone nor any combination of Handique with Soane and Southgate includes suggestion or motivation to modify Handique to achieve the determining step of claims 1 or 28, the determining step of claim 38, the sensing step of claim 26, or the sensing step of claim 27. Accordingly, the rejection of independent claims 1 and 26-28, and 38 and their respective dependent claims should be withdrawn.

It is submitted that the present claims are patentable for at least the foregoing reasons.

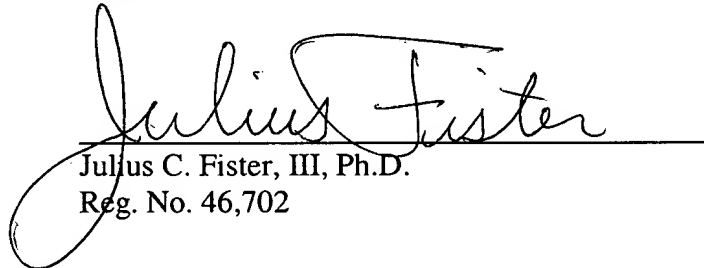
Applicant : Kalyan Handique et al.  
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A Request for Continued Examination and Petition for Extension of Time along with the necessary payments are submitted herewith. Please apply any credits or other charges to deposit account 06-1050.

Respectfully submitted,

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Julius C. Fister, III, Ph.D.  
Reg. No. 46,702

Fish & Richardson P.C.  
225 Franklin Street  
Boston, MA 02110-2804  
Telephone: (617) 542-5070  
Facsimile: (617) 542-8906

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